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A Risk Factor Tool for United States Teenage Pregnancy:
Adapting a Tool from the United Kingdom

Kanchen Loganathan

Wright State University Boonshoft School of Medicine

Master of Public Health Program

Nikki L. Rogers, PhD, CPH – Committee Chair

Shannon M. Morano, MEd – Committee Member

Acknowledgements

There is no way I could have finished this program or this project without the assistance of multiple people. First, I would like to thank Dr. Nikki Rogers for being my chair, and for all of the time she spent helping me edit this paper. She took time out of her schedule to meet with me late into the evening, and on multiple weekends to ensure I was able to finish this paper.

I so appreciate Ms. Shannon Martin Morano, School Counselor for Yellow Springs High School and McKinney Middle School and former Planned Parenthood Training Manager for Southwest Ohio, for her dedication to teen pregnancy prevention and positive energy. She was willing to jump in and help us on this project at the last minute when a committee member was unexpectedly unable to assist. I would also like to thank Lori Metivier, our program coordinator, for assisting with edits and final touches. A special thank you goes to Dr. Sara Paton and Dr. James Ebert for their work in developing this curriculum, and for their support of the students in this program.

I also would like to thank my family, especially my parents, for all of their encouragement and faith in me throughout this journey. They have had my back no matter what, and I could not have completed this program without them.

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Abstract

With a population of 42 million, one out of every eight people living in the United States is an adolescent. Current data show that half of American adolescents today are engaging in sexual activity, and one in eight adolescent females will become pregnant before the age of 20. The number of teenage pregnancies have declined over the past decade due to increased contraception, and more efforts to educate adolescents on safe sex. Newer research also reports that pregnancy during an adolescent's teenage years may not be as detrimental to their lives as once thought. However, teenage pregnancy has been linked to a wide array of negative outcomes later in maternal life including: higher rates of psychosocial disadvantage, prolonged welfare dependence, and maternal depression. To the best of our knowledge and research, there is no current risk assessment tool for teenage pregnancy in the United States. To address this gap, a pregnancy risk assessment tool from the United Kingdom was analyzed and used as a basis for a similar tool for use in the United States. This manuscript describes the Manchester Teenage Pregnancy Partnership (MTPP) Risk Assessment Tool, its use, and compares its enumerated risk factors to those described in the literature for teenage pregnancy in the United States. Based on this favorable comparison, we recommend using the MTPP Risk Assessment Tool as a basis for a similar tool for use in the United States with the addition of family income and living environment.

Keywords: Risk assessment, toolkit, risky behaviors, unplanned pregnancy, pregnancy intention, family planning

A Risk Factor Tool for United States Teenage Pregnancy: Adapting a Tool from the United Kingdom

Like cardiovascular disease, mental health, and cancer, teenage pregnancy is a public health problem (Scally, 2002). With a population of 42 million, one out of every eight people living in the United States is an adolescent (Kappeler, 2015). Adolescence (n.d.) is defined as *the period of life from puberty to maturity terminating at the age of majority*. Adolescence is the time period within a person's life when they begin to form their own identity, and this is when teenagers begin to engage in risky behaviors such as sex, drugs, and alcohol (Mason et al., 2016). The teenage years, ranging from 13 years of age to 19 years of age, are when youth are presented with life experiences and new situations where decisions about engaging in risky behaviors can occur (Smith, Wilson, Menn, & Pulczynski, 2014). This is the time when they begin to associate with other teenagers outside of their parents' control, and now able to form their own values and opinions. Adolescents begin to engage in risky behaviors while in adolescence, and one of the main risky behaviors they engage in at this young age is sexual activity (Shorey et al., 2015).

Current data show that half of American adolescents today are engaging in sexual activity, and one in eight adolescent females will become pregnant before the age of 20 (Kappeler, 2015). Patterns of unplanned adolescent pregnancies are often referred to as teenage pregnancy or teen pregnancy because they pose specific public health risks to both the mother and the child. Teenage pregnancy has been linked to a wide array of negative outcomes later in maternal life including: higher rates of psychosocial disadvantage, prolonged welfare dependence, and maternal depression (Woodward, Fergusson, & Horwood, 2001). Children born to teenage mothers are more likely to experience infant mortality, malnutrition, and/or underdeveloped bone structures (Boia, Boia, Cioboata, & Manea, 2016). Teenage mothers are

more likely to give birth to babies with lower birth weight, poorer cognitive development trajectories, and increased infant mortality when compared to older mothers (Langille, 2007). Because of these health problems, births to teenage parents cost almost \$10 billion each year (Danawi, Bryant, & Hasbini, 2016).

Since 2012, women in the United States have seen an increase in access to affordable contraception under the Obama administration due to the Affordable Care Act (Donovan, 2016). The Affordable Care Act (Patient Protection and Affordable Care Act, 42 U.S.C. § 18001 et seq., 2010) is important because it covered the cost of birth control as preventative healthcare (Donovan, 2016). New United States President Donald Trump and his administration have promised to repeal the Affordable Care Act (Donovan, 2016). With this uncertain future for broad access to contraception and affordable contraception, public health programs must identify individuals most at risk for teenage pregnancy to target with increased prevention education and intervention (Howell, 2017). Another important reason for identifying this target population is that the future of sexual education in public schools is also uncertain under the Trump administration, as his Vice President Mike Pence has previously supported ineffective, “abstinence-only” education (Kempner, 2017, *It’s a Waiting Game*). The most recent research shows that abstinence-only sexual education has no effect on the age of first sexual activity of teenagers (Sexuality Information and Education Council of the United States (SIECUS), 2009). If the Trump administration mandates the abstinence-only education policy favored by prior conservative administration (SIECUS, 2009), it is necessary to identify and educate the “most at-risk teenage individuals” (McEwan, 2009, p. 1). It is therefore imperative to determine the central risk factors for teenage pregnancy to most accurately identify individuals who are most at risk. We have identified five risk factors central to teenage pregnancy risk: income, education,

social support networks, living environment, and substance use. In the pages that follow, these five risk factors are evaluated as components of a risk factor profile by which American teen women most at risk for unplanned pregnancy could be identified and prioritized for public health intervention in times of reduced reproductive health funding.

In June 1999, The United Kingdom's Social Exclusion Unit launched *The Teenage Pregnancy Strategy* aimed at achieving two goals by 2010: 1) "reduce the under-18 conception rate by 50%," and 2) "increase the proportion of teenage mothers in education, employment, or training by 60%" (Manchester Teenage Pregnancy Partnership [MTPP], 2011, Teenage pregnancy in Manchester: Our targets). The Unit reached out to a local agency the Manchester Teenage Pregnancy Partnership, who complied and developed a list of the risk factors for teenage pregnancy in the United Kingdom. The goal of the campaign was to develop a risk assessment tool in order to identify the individuals most at risk for this unplanned teenage pregnancy in Manchester (MTTPP, 2011).

To the best of our knowledge and research, there is no current risk assessment toolkit for teenage pregnancy in the United States. Thus, the toolkit from the United Kingdom was analyzed for use as a template for a teen pregnancy risk assessment for use in the United States.

Statement of Purpose

This manuscript describes the Manchester Teenage Pregnancy Partnership (MTTPP) Risk Assessment Toolkit, its use, and compares its risk factors to those described in the literature for teenage pregnancy risk in the United States. Based on this comparison, we offer recommendations to adapt the MTTPP Risk Assessment Tool designed for individual risk assessment for use in the United States.

Background

Risk Factors for Teenage Pregnancy

The high school years are a time where there are football games, parties, and dances, giving teenagers more opportunities to interact with the opposite sex. Along with these increased opportunities to connect comes this desire to feel included within a peer social group and a greater exposure to alcohol, tobacco, unsafe sex practices¹, and drugs. Peer pressure (n.d.) is defined as *a feeling that one must do the same things as other people of one's age and social group in order to be liked or respected by them*. The tendency to engage in these negative and risky behaviors comes from peer pressure (Smith et al., 2014). The risky behaviors that many adolescents engage in include: unprotected sexual contact and intercourse, illicit use of legal and illegal drugs, and alcohol use. Peer participation has been shown to increase the risk of smoking initiation, alcohol initiation, sexual risk, and violence (Viner et al., 2012). Currently, adolescents account for 50% of all new cases of sexually transmitted infections (Jackson, Seth, DiClemente, & Lin, 2015). Many of these behaviors are seen concurrently as 21% of sexually active adolescents also report using drugs and alcohol at the same time (Smith et al., 2014). With teenagers using alcohol and drugs while engaging in sexual activity, the likelihood of condom usage and other safe sex practices decrease (Smith et al., 2014).

Risky behavior can be defined as engaging in any of a wide variety of negative activities that contribute to youth public health problems, including cigarette smoking, weapon carrying, and unprotected sexual intercourse (Brener, Billy, & Grady, 2003). Adolescent risky behavior is

¹ It is necessary for teenagers to receive information about healthy sexual activity in order to develop skills for positive family planning. More information regarding this topic can be found at <https://www.plannedparenthood.org/educators/implementing-sex-education>

associated with increased rates of sexually transmitted disease and unplanned pregnancies (Shorey et al., 2015). Alcohol has been reported to notably increase the likelihood of risky sexual behavior (Martins-Fonteyn et al., 2016). Activities such as cigarette smoking, marijuana use, and alcohol use are known to be “gateway factors” for other risks, and many times may lead to the use of illicit drugs or unplanned sexual activity (Nkyi, 2015, p. ?). Marijuana use, smoking, alcohol use, and illicit drug use are all behaviors which have been seen to begin during the adolescent age (Li, Simmons-Morton, & Hingson, 2013).

Health Risk Assessments

A health risk assessment is used by healthcare providers to learn about a patient’s history (i.e., family, living, health), in order to identify how ‘at risk’ someone is for a specific health problem (Goetzel et al., 2011). Health risk assessments can be useful for teenage pregnancy by evaluating how ‘at risk’ a teenager is for unplanned pregnancy based on the number of risk factors they exhibit.

Epidemiologic research, conducted by many institutes including the Centers for Disease Control and Prevention, is used to identify health disparities among different races, ethnic groups, geographical areas, and socioeconomic areas (Centers for Disease Control and Prevention [CDC], 2015). Once populations at risk are identified through epidemiologic studies, health risk assessments can be used to identify individuals at risk for a particular disease. For example, the MTTP Risk Assessment Tool is based on past epidemiological research that identified the risk factors for teenage pregnancy in Manchester, United Kingdom.

MTPP Risk Assessment Tool

The Social Exclusion Unit of the United Kingdom (U.K.) was founded in December of 1997 by the U.K. Prime Minister (Social Exclusion Unit, 2004). The unit is comprised of government and civil service officials aimed at eliminating the effects of social exclusion which include poverty, poor health, and/ or high crime (Social Exclusion Unit, 2004). In June of 1999, the Manchester Social Exclusion Unit launched the national campaign *Teenage Pregnancy Strategy* (MTPP, 2011). This program sought to reduce the number teenage parents, and increase the resources for teenage pregnancy prevention in England (MTPP, 2011). The campaign was designed to increase education, support services from local/ non-profit agencies, and access to contraception in hopes of reducing the number of births to teenage mothers (MTPP, 2011). The MTPP also wanted to increase support and assistance for teenagers who were already pregnant, to ensure they had a healthy pregnancy and delivery (MTPP, 2011). The two main objectives of this project were: to reduce the under-18 range conception rate by 50%, and increase the employment, education, and training of teenage mothers by 60% both by 2010 (MTPP, 2011).

The city of Manchester was found to have one of the highest teenage pregnancy rates in the U.K. (MTPP, 2011). Based on public health data, the MTPP noted that more than one in every ten teenage girls in Manchester would be expected to conceive and give birth by their eighteenth birthday (MTPP, 2011). While teenage females are physically able to conceive and carry an infant, many fail to acknowledge the emotional and physical consequences that arise from having a baby at such a young age (MTPP, 2011). Teenage pregnancy has been strongly associated with higher rates of psychosocial disadvantage, prolonged welfare dependence, and maternal depression (Woodward et al., 2001). Children born to teenage mothers are more likely to experience infant mortality, malnutrition, and/or underdeveloped bone structures (Boia et al.,

2016). Teenage mothers are more likely to give birth to babies with lower birth weight, poorer cognitive development trajectories, and increased infant mortality when compared to older mothers (Langille, 2007).

Teenage pregnancy is not solely negative though as many have perceived. Many mothers believe that the pregnancy early in life taught them they needed to be successful academically in order to be able to financially support their children (Seamark & Lings, 2004). Moreover mothers who experienced a teenage pregnancy believed it made them mature faster than their peers, and were able to appreciate family at an earlier age than females who did not have a pregnancy earlier in life (Seamark & Lings, 2004).

The Social Unit's *Teenage Pregnancy Strategy* required Manchester to reduce the under-18 conception rate by 55 % (MTPP, 2011). The MTPP chose to address this challenge by creating a risk assessment tool (Appendix A) and risk assessment checklist (Appendix B), both now available in their online toolkit (Appendix C and <http://www.anyplanstonight.co.uk/web/images/stories/riskassessmenttoolkit.pdf>).

Thus, the agency identified risk factors for teenage pregnancy and divided them into three groups: risk-taking behaviors, education, and social circumstance (MTPP, 2011, Appendix C Introduction). Risk-taking behaviors, education, and social circumstances were the three major groups that each of the risk factors they identified fell into. Within the risk-taking behavior category the following risk factors were assessed: poor and/or inconsistent use of contraception, alcohol and substance misuse, previous pregnancy or abortion, poor mental health, and/or involvement in crime (MTPP, 2011, Appendix C Introduction). The second category of education contained questions regarding the following factors: low education attainment, dislike of/not attending school, and/or leaving school at 16 with no qualifications (MTPP, 2011).

Finally, the third category, social circumstances, included the following elements: daughter of a teenage mother, living in care, ethnicity, and/or parental aspirations (MTPP, 2011). Three categories and their components are listed in Table 1. Each part of the toolkit is described in the following sections.

Table 1

Categories of Risk Factors Identified by the Manchester Teenage Pregnancy Partnership Toolkit

Risk-Taking Behaviors	Education	Social Circumstances
Poor or inconsistent use of contraception	Low educational attainment	Daughter of a teenage mother
Alcohol and substance of misuse	Dislike of/not attending school	Living in care
Previous pregnancy or abortion	Leaving school at 16 with no qualifications	Ethnicity
Poor mental health		Parental aspirations
Involvement in crime		

Note. Taken verbatim from Manchester Teenage Pregnancy Partnership, 2011, p. 3.

MTPP Risk Assessment Checklist. The MTPP Risk Assessment Checklist (Appendix A) is a two-page document that describes the general risk factors for teenage pregnancy in the U.K. It is used primarily when working with groups of youth, and is described as an educational aid rather than a formal assessment of individual risk (MTPP, 2011). The risk assessment checklist is used to educate groups of students by demonstrating the risk factors which lead to teenage pregnancy (MTPP, 2011).

When utilizing the MTTP Risk Assessment Checklist for a group, one point is awarded for each risk factor to which the group is exposed. The checklist utilizes a point scoring system (Table 2) to determine how at risk that group of teenagers is (MTPP, 2011). A risk score of '1' indicated both low and moderate risk of teenage pregnancy, which is an error within the MTPP. The same is true for a risk score of '3' which indicates both moderate and high risk of teenage pregnancy.

Table 2

Risk Scoring System for Group Exposure Make Developed by the Manchester Teenage Pregnancy Partnership (MTPP) Risk Assessment Checklist

Risk Level	Suggestive Actions	Score
High Risk	There is a high risk of teenage parenthood. Appropriate intervention is required to protect their sexual health. Young people should be referred to, and supported to access, local sexual health services.	3+
Moderate Risk	There is a moderate risk of teenage parenthood. Young people should receive information about sex, relationships and sexual health, be supported to develop self-esteem, confidence and aspirations, and signposted to local sexual health services.	1-3
Low Risk	There is a low risk of teenage parenthood but the young people will benefit from appropriate information about sex, relationships and sexual health, and information about local sexual health services.	0-1

*A risk score of '1' indicated both low and moderate risk of teenage pregnancy, which is an error within the MTPP. The same is true for a risk score of '3' which indicates both moderate and high risk of teenage pregnancy. Taken verbatim from Teenage Pregnancy Partnership, 2011, p. 5.

MTTP Risk Assessment Tool. The MTTP Risk Assessment Tool (Appendix B) is used at the individual level to determine how at risk a female is for teenage pregnancy (MTPP, 2011). The risk assessment tool is used more as a questionnaire to determine how at risk a specific female is for teenage pregnancy, based on her personal answers (MTPP, 2011). While both the risk assessment checklist and the risk assessment toolkit cover the same general concepts, the risk assessment toolkit asks about more specific factors since it is used more for assessing an

individual teenager's risk based on her specific answers (MTPP, 2011). The tool is scored with some questions awarded higher points which reflect higher risk; the score for each question is listed on the tool itself (see Appendix B).

MTPP Risk Assessment Tool items mapped to Table 1. Table 3 shows each item on the MTPP Risk Assessment Tool mapped to the three risk factor categories.

Table 3

Risk Assessment Tool Questions Mapped to Categories of Risk Factors Identified by the Manchester Teenage Pregnancy Partnership

Risk-Taking Behaviors	Education	Social Circumstances
Poor and inconsistent use of contraception	Low educational attainment	Daughter of a teenage mother
Alcohol and substance misuse	Dislike of/not attending school	Living in care
Previous pregnancy or abortion	Leaving school at 16 with no qualifications	Ethnicity
Poor mental health		Parental aspirations
Involvement in crime		Social support
Behavioral issues		

No United States Teenage Pregnancy Risk Tool Currently Exists

To the best of our knowledge and research, no American risk toolkit like the MTPP currently exists. A thorough search of online journals, internet resources, and consultation with experts in reproductive services and teenage pregnancy revealed no teen pregnancy risk assessments that are used in the United States. Although the rates of teenage pregnancy have decreased in the United States, it is still a public health concern that needs to be addressed. Thus, a health risk assessment to identify the risk factors for teenage pregnancy in the United States would be helpful.

Comparison of UK and American Teenage Pregnancy Risk Factors

In this project, the risk factors for teenage pregnancy inventoried by the MTPP were compared to the United States risk factors for teenage pregnancy described in the public health literature. This comparison was conducted in order to offer recommendations to adapt the MTPP Risk Assessment Tool for use in the United States.

A search of the United States teenage pregnancy literature was conducted for each of the risk factors listed in Table 1 to determine if that risk factor was prevalent in the United States. In the sections that follow, each column from Table 1 is addressed sequentially, and a brief description is given of the United States literature pertaining to each risk factor. Each section and sub-heading is entitled to match the listings in Table 1 (Risk-Taking Behaviors, Education, Social Circumstances).

Because some central risk factors for teenage pregnancy in the United States were not included in the MTPP Risk Assessment Tool, an additional section describing these risk factors was included.

Column One: Risk-taking Behaviors

Poor and inconsistent use of contraception. Contraception is seen as the best way to reduce the risk of unintended pregnancy in sexually active women (CDC, 2017). There are various forms of contraception, each with different positive and negative aspects; all with the ultimate goal of preventing conception. Contraception effectiveness is dependent on a variety of factors including: how consistently it is used, if it is used/taken properly, and/or consuming antibiotics which would reverse the effects of the contraception (McDermott, 2016).

When accounting for all types of contraceptives, the reduction in pregnancy ranges from 52 to 100% (Trussell, Raymond, & Cleland, 2014). Little to no use of contraception among

teenagers is one of the reasons for unplanned teenage pregnancy (Chen et al., 2007). Teenage females using a method of contraception has been linked to less sexual behavior, in turn leading to fewer cases of teenage pregnancy (Wright, Duffy, Kershner, Flynn, & Lamont, 2015).

Education on available contraception and how to utilize each option contributes to promoting sexual activity during the teenage years as a normative, healthy option to decrease teenage pregnancy (Planned Parenthood, 2014). There is inherent risk for life-long consequences of teenage pregnancy, but the most effective public health position is not to tell teens simply do not be sexually active, but rather if you want to be sexually active, do so in a safe manner during the adolescent period (Santelli et al., 2007).

While the number of American unintended pregnancies increased from 2001 to 2008, it decreased from 2008 to 2011 by almost 45% (Guttmacher Institute, 2016). The Guttmacher Institute (2016) attributes this decrease to the enactment of the Affordable Care Act and greater access to contraception and to the growing popularity of the morning after pill (e.g., Plan B One-Step, Emergency Contraception Pill).

Prior to the passage of the Affordable Care Act many birth control options were not covered by insurance companies (Catrone, 2016). Many insurance plans did not cover specific formularies, would require the member to pay the full cost of the contraceptive before they met their deductible, and/or the insurance company did not cover the contraceptive cost at all (Catrone, 2016). An older study reports that decreased teenage pregnancy rates seen between 1995 and 2002 was attributed to increased contraceptive use (Santelli, Lindberg, Finer, & Singh, 2007). Significant contraceptive use for youth between age 15 and 17 years contributed to the declining pregnancy rate (Santelli et al., 2007). Furthermore, another study found that the rate of

condom use within the age range of 15 to 17 years old increased from 38% to 58% and the rate of the pill increased from 19% to 39% after the mid 1990s (Santelli et al., 2007).

Alcohol and tobacco use. Alcohol is a known teratogen, and consuming alcohol while pregnant can lead to fetal alcohol syndrome (Bottorff et al., 2014). The increased rate of substance use in teens is often attributed to the increase in unplanned pregnancies in this age group. This is because alcohol and tobacco use are strongly associated with increased risk taking that is also said to lead to unprotected sexual activity (Bottorff et al., 2014). Teenage females are more likely to use substances (both alcohol and cigarettes) during pregnancy when compared to older women (Bottorff et al., 2014). Many believe this is because teenagers are more likely to be unaware of their pregnancy, and discover they are pregnant later than older women (Bottorff et al., 2014). Current research shows there is a higher rate of female adolescents smoking when compared to males, and female teenagers are engaging in smoking at an earlier age than males (Bottorff et al., 2014). In fact, teenage females are seen to have higher rates of both tobacco and alcohol use when compared to males of the same age (Bottorff et al., 2014). Tobacco use is often seen concurrently with alcohol consumption in teenage youth (Bottorff et al., 2014). Tobacco use while pregnant is strongly associated with low baby birth weight, stillborn babies, and sudden infant death (Bottorff et al., 2014). Current research suggests that tobacco and alcohol use during pregnancy is most prevalent in adolescent girls when compared to all female age groups (Bottorff et al., 2014). Furthermore, low parental support has been linked to increased alcohol use, which is in turn associated with early sexual activity (Miller, Benson, & Galbraith, 2001). Alcohol use has been linked with other risky behaviors such as delinquency, early cigarette smoking, illegal drug use, and deviant peer involvement, which are all also associated with teenage pregnancy (Woodward et al., 2001).

Previous pregnancy and/or abortion. Previous pregnancy during an adolescent's teenage years is a strongly predictor of "repeat birth" (CDC, 2013, Repeat Births). A repeat birth is defined as "a second (or more) pregnancy resulting in a live birth before the age of 20" (CDC, 2013, Repeat Births). The Centers for Disease Control and Prevention reports that approximately one in five teenage births is defined as a repeat birth (CDC, 2013, Repeat Births). Adolescent mothers are less likely to receive prenatal care than older mothers, and are also less likely to utilize contraception resulting in the multiple pregnancies (Crittenden, Boris, Rice, Taylor, & Olds, 2009). The majority of the females who experience this repeat birth are from a lower socioeconomic background (Conroy et al., 2016).

Infants who are the second child born to a teenage mother are more likely to have birth defects, low birth weight, and to be born premature (CDC, 2013, Repeat Births). Furthermore, repeat births have negative impacts on the mother as well, including low education attainment, decreased job opportunities, and lower income (CDC, 2013, Repeat Births). Teenage females who experience a repeat birth within two years of their first child are more likely to suffer from increased stress and are more likely to neglect their children when compared to other parents (Conroy et al., 2016).

Teenagers who have experienced a previous abortion are more likely to get pregnant again than those teenagers who have not experienced a previous abortion (Mentula et al., 2010). Furthermore, a study conducted between 2005 and 2010 reported that adolescents who had an abortion during their high school years were more likely to terminate a pregnancy again in their lifetime (Mentula et al., 2010).

Poor mental health. A pioneering study conducted in 2013 in Canada found that fertility rates for teenage females were three times higher among those with diagnosed mental health

conditions compared to females without this diagnosis (Vigod et al., 2014). It reported that approximately one in every 25 teenage females who gives birth in Canada has a mental illness (Vigod et al., 2014). Furthermore, the study goes on to explain that there has been limited research on mental health cases among teenage females (Vigod et al., 2014). The fertility rate for teenage girls who have a mental illness is 4.49 per 100, while the fertility rate among unaffected girls is 1.52 per 100 (Vigod et al., 2014). The study found fertility rates have decreased for unaffected females over time, while the fertility rate for those with a mental illness diagnosis has stayed steady over time (Vigod et al., 2014). Some of the major mental health diagnoses adolescent females face which have been positively linked to teenage pregnancy include: major depressive disorder, schizophrenia, bipolar disorder, and other psychotic disorders (Vigod et al., 2014). There have not been many studies regarding the association between teenage pregnancy and mental health disorders to IRB regulations, thus the Canadian study referenced above was one of the few identified. Ethical concerns pertaining to research on teenagers with a mental health illness also have contributed to the lack of studies conducted on this population (Youngner & Gaines, 2006).

Involvement in crime and behavioral issues. Juvenile delinquents and those youth in the judicial system have a higher rate of teenage pregnancy compared to those not in the system (Aalsma, Tong, Wiehe, & Tu, 2010). Furthermore, sexual risk behaviors including increased HIV risk and lack of condom use were noted among those youth involved in the juvenile justice system (Aalsma et al., 2010). A study of adolescents who had been arrested or charged with a crime had three to four times the risk for engaging in sexual activity (Aalsma et al., 2010).

Rapid repeat pregnancies have been closely associated with females who use physical force or physical aggression (Crittenden et al., 2009). One study found that teenage females who

had two babies within a 24-month period were more likely to use physical force to solve a domestic dispute than teenage girls who had not had a repeat teenage pregnancy (Crittenden et al., 2009). The same study identified aggression as one of the main indicators of teenage child-bearing (Crittenden et al., 2009). The study emphasized that adolescents who exhibit aggressive behavior and already have at least one child should be monitored and should be the focus of repeat pregnancy prevention efforts (Crittenden et al., 2009).

Rapid repeat pregnancies are seen as risk factors for teenage pregnancies in adolescent females. Women with unintended pregnancies are more likely to be the victims of physical abuse up to 12 months before conception when compared with women who had intended pregnancies (Santelli et al., 2003). Other forms of abuse are also seen concurrently with the physical abuse, including (but not limited to) sexual and psychological abuse (Santelli et al., 2003). Pregnant females are more likely to experience gender-based violence (violence against women) because they are more likely to be in a relationship when compared to non-pregnant females (Memarian, Ameri, Shakeri, & Mehrpisheh, 2016). Physical abuse during the pregnancy period is correlated with lack of support from family, a partner with a drinking problem, and relationship stress between the couple (Memarian et al., 2016). Morbid jealousy is known to be highly correlated with physical violence relationships (Memarian et al., 2016). Furthermore, alcohol and drug use has a strong association with morbid jealousy, jealousy on a grandeur scale, implying this substance use is associated with physical violence and abuse (Memarian et al., 2016).

Column 2: Education

Low education attainment; Dislike of/not attending school; and Leaving school at 16 with no qualification. Research suggests that teenagers who attain higher levels of education are more motivated to prevent pregnancy (Danawi et al., 2016). Higher education has also been

linked to fewer teenage births (Viner et al., 2012). The opposite is also reported: teenage mothers are less likely to earn their high school, college, or other scholastic degree compared to their childless peers (Diaz & Fiel, 2016). This low educational attainment trend among teenage mothers has been seen across generations as well (Diaz & Fiel, 2016). Children of teenage mothers are found to have significantly poorer cognitive outcomes in school settings than children of mothers in their twenties (Lou & Thomas, 2015).

Educational participation in primary school is a structural determinant for protection against adolescent behaviors associated with pregnancy (Viner et al., 2012). The National Longitudinal Survey of Youth discovered that the probability of a teenager bearing a child was negatively associated with combined standardized test measures of numeracy and literacy (Lou & Thomas, 2015). Another study based on this survey suggested that teenagers who did not drop out of school were less likely to bear a child during their teenage years (Lou & Thomas, 2015). Finally, school-aged females who were paired with teachers who had higher educational experience were less likely to get pregnant while in school than those females who were paired with lower academic quality teachers (Lou & Thomas, 2015).

The cost of tuition at many two-year colleges in the teenager's state of residence has been shown to be negatively correlated with the number of sexual partners the teenager has had (Lou & Thomas, 2015). This suggests that those youths who face lower costs of postsecondary school tuition are less likely to be risky in their sexual activity (Lou & Thomas, 2015).

Column 3: Social Circumstances

Daughter of a teenage mother. Being the daughter of a teenage mother increases a girl's risk of the following during their teenage years: joining a gang, running away from home, using drugs, dropping out of school, and getting pregnant (Genna, Larkby, & Cornelius, 2011).

Pubertal timing has been strongly associated with teenage pregnancy and earlier sexual intercourse (Genna et al., 2011). Pubertal maturation increases sexual motivation and desires, which in turn increases likelihood of sexual activity, making those teenagers who mature earlier more at risk for teenage pregnancy (James, Ellis, Schlomer, & Garber, 2012). Many attribute pubertal timing as a reason teenage pregnancy has become a generational disease (Genna et al., 2011). The changes during puberty spark sexual interest between both genders which in turn leads to increased sexual behavior (Genna et al., 2011). Thus, if an adolescent engages in sexual activity early, they are more likely to get pregnant and pass on the gene for early puberty to their offspring, which continues the cycle (Genna et al., 2011). This cycle is also fueled by poorer living environments, increased stressful living situations, and decreased parental support for the adolescent females (Genna et al., 2011).

Living in care. A study from 2005 found that nearly 16% of adolescent females living in foster care in New York City were pregnant or already had a child (Dworsky & Courtney, 2010). Another study sampled youth from 13 states in the United States and found that 17% of female teenagers living in a foster care program were pregnant or had been pregnant, which was double the pregnancy rate of teenagers not living in foster care (Dworsky & Courtney, 2010). Another study found that one-third of females (~33%) in foster care had been or were pregnant, compared to 18% of teenage females in the general population (Dworsky & Courtney, 2010).

Youth living in dilapidated neighborhoods are more vulnerable to teenage pregnancy, poor mental health, lower educational attainment, and youth violence (Danawi et al., 2016). Recent studies show that those families who move to the so-called middle class suburbs have higher rates of labor force participation, have higher earnings and benefits, and are more likely to graduate from high school and attend a four-year college (Harding, 2003). Furthermore, the

Department of Housing and Urban Development began a project in 1994 and found that the treatment group (the group that was moved to a wealthier neighborhood) experienced better health care, increased labor force participation, less juvenile crime, better child care, and higher test scores (Harding, 2003). The Panel Study of Income Dynamics found that neighborhoods in higher poverty areas were more likely to be associated with negative outcomes such as higher high school drop-out rates and teenage pregnancy rates (Harding, 2003). In fact, when moving from low to moderate poverty neighborhoods, high school drop-out rates and teenage pregnancy rates double (Harding, 2003). Furthermore, when moving from moderate to high poverty neighborhoods, the rates increase by between a quarter and a half (Harding, 2003).

Neighborhoods with concentrations of high-poverty residents are more likely to experience negative outcomes and have children experiencing negative behaviors, when compared to those living in affluent areas (Harding, 2003). Neighborhood deprivation in high income countries has been attributed to poor educational outcomes, poor mental health, teenage pregnancy, and youth violence (Viner et al., 2012). One theory is that in poor income neighborhoods there are fewer resources and services which aid in the collective efficacy of the neighborhood and its residents (Viner et al., 2012). When there is a feeling of connectedness within a neighborhood, the likelihood of supervision of adolescents and conveying morals and values is higher, often leading to decreases among these negative health outcomes (Viner et al., 2012). One begins to recognize their neighborhood during their adolescent years: this is the first age when they are able to recognize their living community (Harding, 2003).

Danawi, Bryant, and Hasbini (2016) identify four key correlated social determinants of health that influence the rates of teenage pregnancy: income, education, social support networks,

and the teenager's living environment. A brief review of trends in each of these social determinants is provided below.

Ethnicity. There are stark differences within the risk factors of teenage pregnancy between ethnic groups. Black girls have been reported to reach menarche up to a year before White females (Genna et al., 2011). This gives Black teens a longer period of time 'at risk' of engaging in adolescent sexual activity and getting pregnant when compared to teenage females who begin menarche later. Black youth also have been reported to engage in sexual intercourse earlier than White teenagers (Genna et al., 2011). Furthermore, Black adolescents are known to have a greater number of teenage pregnancies than White teenagers and to be raised by teenage mothers (Genna et al., 2011). They are also less likely to get married and are more likely to get pregnant at a younger age (Genna et al., 2011).

Parental aspirations. It is not surprising that research shows that teenagers who aspire to have children in their near future or who are not opposed to having children in their near future may have greater likelihood of teenage pregnancy than their peers without these positive parental feelings (Davies et al., 2004). Davies and colleagues' 2004 study showed that some teenage females have an intention to become pregnant and may therefore not use contraception, resulting in teenage pregnancy). Studies have also identified that teenagers who had higher pregnancy intentions were more likely to avoid utilizing contraception when compared to those teenagers with low pregnancy intentions (Lewin, Mitchell, Hodgkinson, Gilmore, & Beers, 2014). Research suggests that the dynamic between a female and her male partner and the length of their relationship may impact their aspirations to become teenage parents (Davies et al., 2004). One of the main factors impacting pregnancy intention among adolescent females was how they perceived their partner's pregnancy intentions (Lewin et al., 2014).

Research has also identified that positive attitudes regarding a teenager's relationship with their partner is also seen to positively influence pregnancy intention in females (Lau et al., 2014). Lack of contraception use, having an older partner, and having a relationship duration less than six months were all factors associated with positive pregnancy aspirations in African American adolescents (Lau, Lin, & Flores, 2014). Frequent sexual activity, cohabitation, and relationship duration were all positively correlated with pregnancy intention in Latino teenage females (Lau et al., 2014).

Lack of social support networks. Adolescents with closer and more tight-knit families are more likely to delay sexual activity (Danawi et al., 2016). A national study found that one out of six females whom were placed in 'out of home care' during adolescence bore a child before the age of 20 years old, compared to one in 35 females in the general population (Brännström, Vinnerljung, & Hjern, 2016). Furthermore, a study on teenage births and child welfare found that the highest number of births (28%) were found for females who were placed in societal care for behavioral problems (Brännström et al., 2016). This suggests that teenage pregnancy is strongly correlated with mothers who have conduct and behavioral problems (Brännström et al., 2016). Recent studies have found that primary family support serves as a protective function against adolescent, and that increased parental support and behaviors led to positive outcomes in youth (Viner et al., 2012).

Family connectedness is seen as one of the most important factors against poor health outcomes in adolescents (Viner et al., 2012). In the United State, teenagers who identify themselves as close with their families are more likely to delay sexual activity, are less likely to engage in violence, and are less likely to use alcohol, marijuana, and cigarettes than compared to those teenagers without social support networks (Viner et al., 2012). When compared to

Caucasian teenagers, African-American teens found to have less social support (Viner et al., 2012). Parents and families also serve as models for youth they model certain behaviors for their children each day (Viner et al., 2012). Thus, parents' behaviors are seen to directly influence children's behaviors such that children of parents who drink, smoke, or engage in violence are more likely to engage in their behaviors as well (Viner et al., 2012).

Additional Teen Pregnancy Risk Factors Reported for the United States

Income and living environment are strongly associated social determinants of health that were identified as teen pregnancy risk factors in the United States, but were not listed on the MTPP. Research suggests that those teenagers living in poverty are more likely to engage in sexual activity (Danawi et al., 2016). Pregnancies are more common in pregnant teenagers living with parents from low socioeconomic backgrounds than teenagers living with parents with high socioeconomic backgrounds (Väisänen & Murphy, 2014). Furthermore, teenagers with a low socioeconomic status are more prone to choose childbirth over abortion (Väisänen & Murphy, 2014). In the United States teenage child bearing mothers are subject to decreased educational attainment leading to a decreased income later in life (Lou & Thomas, 2015).

Teenage mothers are at an increased risk of living in poverty than those teenagers without a child (Lou & Thomas, 2015). Some researchers argue that this negative economic disparity is not necessarily a causal outcome of teen pregnancy since many of the teenage childbearing mothers were disadvantaged before they gave birth to their offspring (Lou & Thomas, 2015). This can contribute to the generational pattern of teen pregnancy: since teenage pregnancy has been associated with negative outcomes such as decreased educational attainment for the mother, prolonged welfare dependence, and decreased socioeconomic status, this is what the offspring of teenage mothers are surrounded by when they grow up (Woodward et al., 2001).

Recent data have also shown that teenage pregnancy is negatively correlated with the economic opportunity in the form of intergenerational income mobility, employment rates, and adolescent education expectations (Lou & Thomas, 2015). Gold and colleagues report that in the United States areas that teenage pregnancy was associated with income and poverty inequality (Viner et al., 2012). Countries exposed to poorer inequality outcomes and impoverished economic systems are more prone to their residents having poorer outcomes, and this same concept is mirrored within neighborhoods within the U.S. (Viner et al., 2012).

Discussion and Recommendations

From analyzing both the risk factors for teenage pregnancy seen in the United States and the risk factors determined in the study from Manchester, we conclude that there are few differences. The majority of the risk factors seen in the United States fall into one of the three categories seen in Table 1. The model of the health risk assessment used in the United Kingdom could therefore be a template used to make a similar tool for use in the United States. From column one (risk-taking behaviors) all of the risk factors mentioned in the MTTP Toolkit were found in the United States literature describing risks for teenage pregnancy. Both inadequate use of contraception and alcohol and substance misuse were found to be major risk factors for teenage pregnancy in the United States. However, less research has been done on the impact of having a previous pregnancy, poor mental health, and involvement in crime. The second column (education) was found to be a well-documented contributor to teenage pregnancy in the United States, as there has been a great deal of research found linking high school drop-out and low educational attainment with teenage pregnancy. Column three from the MTTP Risk Assessment Toolkit included most social circumstance factors. Both living in care and ethnicity were found to be major factors in teenage pregnancy in both Manchester and the United States. Although

being the daughter of a teenage mother was identified as a risk factor for adolescent pregnancy in the United States, less research has been conducted on this topic in the United States than in the U.K.

Income and associate social determinants of health were risk factors for teenage pregnancy in the United States that were not identified in Manchester. Thus, in order for the United States to develop a risk assessment toolkit, these interrelated risk factors must be added to the existing Manchester template. None of the risk factors from the MTPP would need to be eliminated from the United States risk assessment, as all of them were found to be valid.

The MTPP Risk Assessment Tool uses a weighted scoring system for each of the risk factors listed. The tool does not, however, indicate how the points are weighted or how the weights were determined. It would be logical if each risk factor would be given a score weight depending on how strong association there is between the factor and teenage pregnancy risk in the United States.

In the scoring point system on the MTPP Risk Assessment Checklist, the score of '1' is categorized as both low and moderate risk for teenage pregnancy. This mistaken overlap was also stated for a score of '3'. This mistake is not addressed in the materials and should not be duplicated.

Although teenage pregnancy rates are declining in the United States, it is still a public health concern needing attention. Although many portray teenage pregnancy in a negative light, it is not as detrimental as once thought to be. That said, public health outcomes are better for when pregnancy is planned and carried out with prenatal education and health services. A United States risk assessment toolkit for teenage pregnancy does not exist (at least to our knowledge), and can use the MTPP Risk Assessment Toolkit as a template to create one. Since the risk

factors for the MTTP tool and the United States basically mirror each other, this would be a beneficial template to use. The goal of the United State toolkit would be to identify individuals who are at risk for becoming a teenage parent themselves, and provide them with resources, knowledge, and successful intervention ideas in hopes of decreasing this public health problem.

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Appendix A: MTTP Risk Assessment Checklist

Risk Assessment Checklist

This checklist can be used when working with individuals or groups of young people. It is best used as an aide memoir and is not designed as a formal assessment.

Add up the number of risk factors that the young people you are working with are exposed to. Then have a look at the suggested actions in the box below:

Risk factors	Tick
Being a child of a teenage parent	
Being a teenage parent already	
Growing up in a poor household	
Living in a deprived area	
Poor educational attainment	
Not engaged in learning	
Being in care / care leaver	
Family breakdown / lack of support	
Sexually active from an early age	
Having multiple sexual partners	
Inconsistent use of contraception	
Wanting to be pregnant / parent	
Regular user of alcohol / drugs	
Poor emotional well-being	
Experience of sexual abuse	
Involved in crime	

Risk level	Suggested actions	Score
High risk	There is a high risk of teenage parenthood. Appropriate intervention is required to protect their sexual health. Young people should be referred to, and supported to access, local sexual health services.	3+
Moderate risk	There is a moderate risk of teenage parenthood. Young people should receive information about sex, relationships and sexual health, be supported to develop self-esteem, confidence and aspirations, and signposted to local sexual health services.	1-3
Low risk	There is a low risk of teenage parenthood but the young people will benefit from appropriate information about sex, relationships and sexual health, and information about local sexual health services.	0-1

In line with the Common Assessment Framework checklist and form, the intention with the Teenage Pregnancy Risk Assessment Tools is to identify and build on strengths; the interventions suggested below should be seen as positive actions that professionals can consider to support young people in making informed choices with regard to their health, wellbeing and parenthood.

The focus is on ensuring that young people:

- have accurate information about sex
- have the opportunity to discuss relationships
- understand the importance of using condoms and other forms of contraception.

Suggested interventions

The interventions are designed to support young people to develop both the means and the motivation to avoid unwanted sexual experiences and to put off parenthood until later in life.

Interventions to prevent teenage conceptions and to reduce sexual risk-taking include:

- Discussing sex, relationships and sexual health with young people, raising their awareness and responding to their identified needs.
- Signposting young people to local contraceptive and sexual health services.
- Advising young people that a full list of local sexual health services is on www.anyplanstonight.co.uk
- Working with young people to raise their self-esteem and self-confidence, to improve their emotional health and wellbeing.
- Helping young people to improve their knowledge about sexual health and to develop the attitudes and skills to manage risk-taking and experimentation and to recognise abuse and exploitation.
- Exploring with young people how to develop skills and confidence to negotiate positive relationships.
- Supporting young people to remain in, or to gain access to, education, employment or training.
- Ensuring that young people have access to Sex and Relationships Education (SRE).
- Ensuring that pregnant young women, young mothers and young fathers have early access to appropriate multi-agency support.

Appendix B: MTPP Risk Assessment Tool

Risk Assessment Tool

This tool can be used to help determine whether a young person is at risk of teenage parenthood. It should be used as a supporting tool alongside other assessments. It is best used when there are existing concerns about a young person's lack of aspiration, sexual behaviour, or desire to become a parent. It is important that the young person understands the purpose of the assessment and provides consent. Due consideration should also be given to relevant policies, including confidentiality and safeguarding.

The tool should be used as a basis for a conversation. Score each of the following risk factors. Some risk factors are weighted more than others. After scoring, have a look at the suggested actions on page 9.

Risk factors	Weight	Score
Vulnerable groups		
Has supportive peers	0	
Known to social care (current or historical)	2	
Looked after child (current or historical)	3	
Learning difficulties	3	
Young offender (current or historical)	4	
Sexual behaviour		
No previous sexual experience	0	
Self-reported safe sexual behaviour	1	
Self-reported unsafe sexual behaviour	5	
At risk of/sexually exploited	5	
Teenage pregnancy		
No personal or family history of teenage pregnancy	0	
Is a teenage parent	3	
Family member became pregnant as a teenager	4	
Has had an unplanned pregnancy	4	
Wants to become pregnant	5	

Alcohol and drugs		
Drug use/misuse (current or historical)	4	
Alcohol use/misuse (current or historical)	5	
Adult support		
Has supportive relationships	0	
Lack of family engagement with professionals	4	
Has no supportive relationships with adults	5	
Home situation		
Happy with home situation	0	
Affected by bereavement	2	
Family breakdown/unsettled environment	3	
Lack of family support	4	
Lack of age appropriate boundaries	4	
Living situation		
Happy with living situation	0	
Not living with parents	2	
Living in a neighbourhood with high conception rates	4	
Breakdown of foster placement	4	
Semi-independent (eg. supported housing)	4	
Homeless	5	
Abuse		
Family member became pregnant as a teenager	0	
Has had an unplanned pregnancy	2	
Wants to become pregnant	3	
Education, employment and training		
Attending education, employment or training	0	
Plans for education, employment or training	1	
Not in education, employment or training	4	
Sporadic attendance	3	

Table continued overleaf

Appendix C: Manchester Teenage Pregnancy Partnership (MTPP) Risk Assessment Toolkit
(introduction, assessment, scoring rubrics, and notes)

Manchester Teenage
Pregnancy Partnership

Supporting Young People to Avoid Early Parenthood

Risk Assessment Tools for Professionals

www.anyplanstonight.co.uk



Introduction

Manchester has one of the highest under-16 conception rates in England. In parts of our city, more than 1 in 10 young women conceive before their 16th birthday. Having children at an early age can damage young women's health and wellbeing and limit their education, career and economic prospects. While individual young people can be competent parents, all the evidence suggests that teenage parents and their children are much more likely to experience a range of negative outcomes in childhood and later life.

Teenage pregnancy is a complex issue, affected by young people's knowledge about sex and relationships and their access to contraceptive advice and services, and influenced by aspirations, educational attainment, parental, cultural and peer influences and levels of emotional wellbeing.

Young people need both the means and the motivation to resist unwanted sexual experiences and to put off parenthood until later in life. In Manchester, we are concentrating on ensuring that young people receive better information about sex, relationships and sexual health; understand the importance of using condoms and contraception; and feel confident to access services; and be supported to make positive choices in relation to their sexual health.

Teenage pregnancy in Manchester: our targets

In June 1999, the Social Exclusion Unit (SEU) launched the national Teenage Pregnancy Strategy with the aims of reducing the number of teenagers who become parents and improving support for teenage parents. Two targets were set: to reduce the under-16 conception rate by 50%, and to increase the proportion of teenage mothers in education, employment or training to 60%, both by 2010.

Manchester is required to achieve a 55% reduction in the under-16 conception rate – from 61.3 per 1,000 in 1998 (baseline) to 27.6 per 1,000 in 2010. Despite the best efforts of local partners, the conception rate has increased since 1998. The most recent statistics (for the period 1999–2006) shows a 9.8% increase in the conception rate. The local partnership is now committed to accelerating progress towards achieving a sustained downward trend in the under-16 conception rate.

Manchester provides excellent support services for pregnant teenagers and teenage parents. We are making good progress towards increasing the proportion of teenage mothers in education, employment and training. Full information about local support services and our prevention programmes can be found on our website: www.anyplanstonight.co.uk

Key messages for young people:

- Most young people don't have sex under the age of 16.
- Don't be pressurised into having sex until you feel ready. It's your choice when to have sex and no one else's – take control, be prepared and be responsible.
- If you are having sex, practise safer sex.
- Local sexual health services provide free and confidential information, advice, and contraceptive supplies – even for under-16s.
- It is better to put off parenthood until you are older. Having a baby is hard work.

Who is at risk?

It is important to work with all young people to address their sexual health needs. Young people benefit from accurate information about relationships, sex and sexual health; opportunities to develop confidence and skills to make informed decisions; and knowing how to access contraception and sexual health services. However, young people have different needs, and some require more support than others.

The characteristics of young people who are at higher risk of becoming a teenage parent and the factors that contribute to that increased risk are now much better understood. Where young people experience multiple risk factors, their likelihood of becoming a teenage parent increases exponentially.

Risk factors

Deprivation		
Risk taking behaviour	Education	Social circumstances
Poor and inconsistent use of contraception	Low educational attainment	Daughter of a teenage mother
Alcohol and substance misuse	Dislike of/not attending school	Living in care
Previous pregnancy or abortion	Leaving school at 16 with no qualifications	Ethnicity
Poor mental health		Parental aspirations
Involvement in crime		

Assessing risk

These risk assessment tools have been produced to assist the identification of children and young people most at-risk of early parenthood. The tools set out the risk factors for teenage parenthood and possible interventions to support young people to avoid unplanned, unwanted teenage conceptions.

1 Risk Assessment Checklist

The Risk Assessment Checklist can be used when planning or delivering work with groups of young people. It is best used as an aide memoir and is not designed to be a formal assessment. It is a useful tool to determine whether group members are at heightened risk of teenage parenthood.

2 Risk Assessment Tool

The Risk Assessment Tool can be used to help determine whether an individual young person is at risk of early parenthood. The tool should be used alongside other assessments. It is best used when there are existing concerns about a young person's lack of aspiration, sexual behaviour, or desire to become a parent.

Risk factors	Weight	Score
Exclusion from education		
No history of exclusion	0	
Between one and three fixed-term exclusions (in an academic year)	1	
Regular fixed-term exclusions (more than three in an academic year)	2	
Permanent exclusion	3	
Non-attendance/self-exclusion	4	
Exclusion from education		
Not applicable	0	
Entered for GCSEs/other examinations	0	
Not entered for GCSEs/other examinations	3	
Left school without qualifications	3	
No future plans	5	
Behavioural difficulties		
No behavioural difficulties	0	
Low level disruptive behaviour	1	
Frequent disruptive behaviour	2	
Engaged in violent behaviour	3	
Emotional health		
No known persistent emotional difficulties	0	
Persistent feelings of frustration/anger	3	
Evidence of self-harming	3	
Persistent unhappiness (sadness)	3	
Persistent lack of motivation	4	
History of emotional neglect	4	
Low self-esteem/confidence	5	
Suicide attempts	5	
Total		

Risk level	Suggested actions	Score
High risk	The young person is at high risk of early parenthood and appropriate intervention is required. Referral to contraceptive services is essential.	30+
Moderate risk	The young person is at moderate risk of early parenthood and should receive information about sex, relationships and sexual health and be referred to contraceptive services and other appropriate services.	20–29
Low risk	The young person is at low risk of early parenthood but could benefit from information about sex and relationships and local contraceptive services.	0–19

Suggested interventions

If you have used the risk assessment tool, you might want to discuss the following interventions with the young person. These interventions should build on identified strengths and should be seen as positive actions that professionals can consider to minimise the risk of teenage parenthood. In all cases, the young person should be involved in the decision-making process, supported in making choices, and possible interventions should be negotiated and agreed with them. Agreed actions should be recorded in the appropriate documentation.

Interventions to prevent teenage conceptions and to reduce sexual risk-taking include:

- Discussing sex, relationships and sexual health with the young person, and directing or referring them to contraceptive and sexual health services. Some young people will need extra support to access these services. Local services are listed on our website: www.anyplanstonight.co.uk
- Contacting alcohol, drugs, and sexual health services for professional support and to make appropriate referrals.
- For issues of self-esteem, emotional health and wellbeing, seeking support and recommendation from child mental health services.
- Considering interventions to improve the young person's knowledge, understanding and skills in relation to sex, relationships and sexual health, and to manage their risk-taking behaviours.
- Securing learning support for children and young people who fall behind in school.
- Skill development to help children and young people form positive relationships and to resolve conflict.
- Encouraging engagement in work experience opportunities, volunteering, and out-of-school activities that foster success, ambition, and contribute to raising aspirations.
- Ensuring support for children and young people experiencing family breakdown or conflict.
- Considering referring parents to sources of parenting support.
- Ensuring that children and young people in care have access to enhanced sexual health information, advice and support, and know how to access contraceptive services. LAC nurses can support this.

Contraception and sexual health services in Manchester

Manchester has a good range of contraception and sexual health services, including dedicated services for young people. For full details of all services, including support services for pregnant teenagers and teenage parents, please visit our website: www.anyplanstonight.co.uk

Young people's services

Brook in Manchester

Dedicated contraception and sexual health service for young people aged under 19. Brook is based in Lever Street and operates Monday to Saturday. Brook also delivers education outreach.
Tel: 0161 237 3001
www.brook.org.uk

FRESH (Palatine Contraception and Sexual Health Service)

FRESH are dedicated contraception and sexual health clinics for young people aged under 25. FRESH clinics are based at The Hathersage Centre, Wythenshawe Forum, Harpurhey and Plant Hill clinics. Contact the service for opening times. Palatine also offers education and clinical outreach.
The Hathersage Centre 0161 901 1555 Harpurhey Health Centre 0161 861 2400
Wythenshawe Forum 0161 217 3553 Plant Hill Clinic 0161 740 8004
www.manchesterpct.nhs.uk

RU Clear?

RU Clear? is the Greater Manchester chlamydia and gonorrhoea screening programme for young people aged under 25. Screening and treatment sites are located across the region. Free postal test kits are also available. Visit the website for further information.
Tel: 0845 330 6363
www.ruclear.co.uk

C-Card

C-Card is the free condom distribution scheme for young people. Condoms are available from a number of sites across Manchester for young people registered with the scheme.
Tel: 0161 237 3001
www.takecoverman.co.uk

Outreach service

A new clinical outreach service will be launched in winter 2008. Check the website for further information, clinic times and venues.
www.anyplanstonight.co.uk

Contraception

Palatine Contraception and Sexual Health Service

This is a comprehensive contraception and sexual health service for men and women of all ages. Clinics are located across the city. Check the website for clinic locations and times.
Tel: 0161 901 1555
www.manchesterpct.nhs.uk

Pharmacies

Some local pharmacies offer a contraception service and sexual health service, prescribing the contraceptive pill, emergency contraception ('morning after pill'), free condoms, and providing chlamydia screening and treatment. An up-to-date list of participating pharmacies is available on the web.
www.anyplanstonight.co.uk

GP: Check with your own GP.

Sexually transmitted infections

GUM clinics are confidential clinics that specialise in the testing and treatment of sexually transmitted infections. Self-referrals are welcome.

GUM Clinic, The Hathersage Centre, MRI

Tel: 0161 276 5200

GUM Clinic, North Manchester General Hospital

Tel: 0161 627 8753

GUM Clinic, Withington Community Hospital

Tel: 0161 217 4939

Emergency hormonal contraception (EHC)

Emergency hormonal contraception, also known as the 'morning after pill', can be taken within 72 hours of unprotected sexual intercourse, but is more effective the sooner it is taken. It can be obtained, free of charge, from:

Palatine Contraception and Sexual Health Service

Tel: 0161 901 1555

Brook in Manchester (under-19s)

Tel: 0161 237 3001

Pharmacies

EHC can be obtained, free of charge, from over fifty local pharmacies. Check the website for an up-to-date list of participating pharmacies.
www.anyplanstonight.co.uk

NHS Walk-In Centres

Ancoats Community Clinic	0161 274 1640
Burnage Walk-In Centre	0161 443 0600
Manchester Piccadilly Walk-In Centre	0161 233 2525
Withington Hospital Walk-In Centre	0161 217 3015
Wythenshawe Forum Walk-In Centre	0161 435 3694

www.manchesterpct.nhs.uk

GP: Check with your own GP.

For further copies of this document, please
email: teenagepregnancy@manchester.gov.uk

Copies can also be downloaded from
our website: www.anyplanstonight.co.uk

This document has been based on the Risk
Assessment Toolkit developed by the Teenage
Pregnancy Team, Stoke-on-Trent City Council, and
the Risk Assessment Checklists produced by the
Teenage Pregnancy Co-ordinators from Blackpool,
Blackburn with Darwen, Cumbria and Lancashire.
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August 2008



Appendix D: List of Competencies Met in CE

Wright State Program Public Health Competencies

Assess and utilize quantitative and qualitative data.
Describe how policies, systems, and environment affect the health of populations.
Communicate public health information to lay and/or professional audiences with linguistic and cultural sensitivity.
Make evidence-informed decisions in public health practice.
Evaluate and interpret evidence, including strengths, limitations, and practical implications.
Demonstrate ethical standards in research, data collection and management, data analysis, and communication.
Explain public health as part of a larger inter-related system of organizations that influence the health of populations at local, national, and global levels.

Concentration Specific Competencies

Emergency Preparedness
Demonstrate the mastery of the use of principles of crisis and risk management
Use research and/or evaluation science methodologies and instruments to collect, analyze and interpret quantitative and qualitative data

Public Health Management
Be capable of applying communication and group dynamic strategies to individual and group interaction
Have a knowledge of successful program implementation principles
Have a knowledge of strategies used for monitoring, evaluating, and continuously improving program performance
Be capable of applying decision-making processes
Have a knowledge of systems thinking principles
Have an awareness of strategies for working with stakeholders to determine common and key values to achieve organizational and community goals
Have an understanding of effective mentoring methods
Be able to determine how public health challenges can be addressed by applying strategic principles and management-based solutions
An understanding of marketing principles and strategies
A knowledge of ethical principles relative to data collection, usage, and reporting results